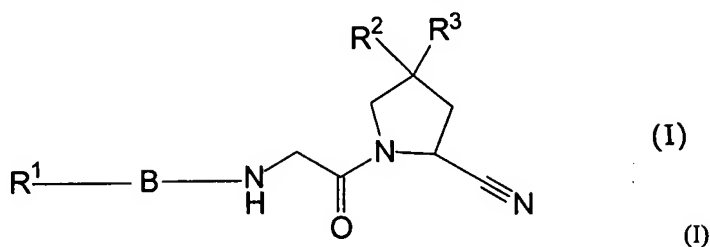


We Claim:

Claims 1-29 (canceled)

Claim 30. (currently amended): A compound having the formula:



wherein

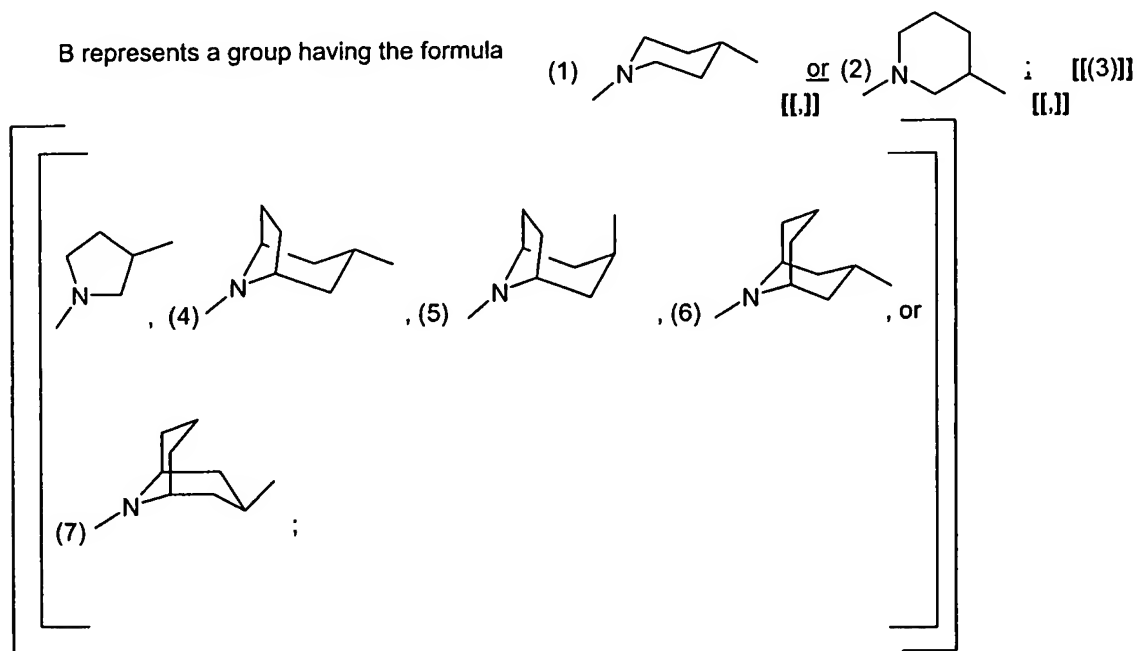
R<sup>1</sup> represents a nitrogen-containing aromatic moiety consisting of one or two aromatic rings; which is optionally mono- or disubstituted by a substituent independently selected from the group consisting of C1-4 alkyl, C1-4 alkoxy, halogen, trihalogenomethyl, methylthio, nitro, cyano, amino, and phenyl group; or

R<sup>1</sup> represents a thienyl, furyl or benzyl group; or

R<sup>1</sup> represents a p-toluenesulfonyl group; or

R<sup>1</sup> represents an acyl group of formula R<sub>1a</sub>-CO, wherein R<sub>1a</sub> represents a C1-4 alkyl, phenyl, piperidin-1-yl, 4-methylpiperazin-1-yl, pyrrolidin-1-yl, or phenyl, pyridyl or phenylethenyl substituted with one or more groups selected from an alkyl, alkoxy, nitro, or halogen atom; or a phenylethenyl or phenylethyl substituted with alkylene-dioxy;

B represents a group having the formula



R<sup>2</sup> represents a hydrogen atom or a fluorine atom;

R<sup>3</sup> represents a fluorine atom;

or a salt, isomer, tautomer, solvate, or hydrate thereof

with the proviso that R1 cannot be benzoxazolyl.

Claim 31. (currently amended): A compound according to claim 30 wherein said nitrogen-containing aromatic moiety consisting of one or two aromatic rings is selected from the group consisting of a pyridyl, pyridazinyl, pyrimidinyl, pyrazinyl, imidazolyl, pirazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, oxadiazolyl, quinolinyl, isoquinolinyl, cinnolinyl, phthalazinyl, quinazolinyl, quinoxalinyl, benzimidazolyl, indazolyl, benzothiazolyl, benzisothiazolyl, ~~benzoxazolyl~~ or benzisoxazolyl, tetrazolyl, and a triazinyl ring.

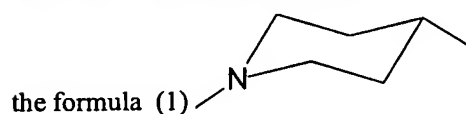
Claim 32. (currently amended): A compound according to claim 30 wherein R<sup>1</sup> represents a nitrogen-containing aromatic moiety consisting of one or two aromatic rings; which is optionally mono- or disubstituted by a substituent independently selected from the group consisting of C1-4 alkyl, C1-4 alkoxy, halogen, trihalogenomethyl, methylthio, nitro, and cyano; ~~or~~

~~R<sup>1</sup> represents a thienyl or furyl group; or~~

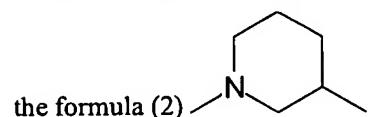
~~R<sup>1</sup> represents a p-toluenesulfonyl group; or~~

~~R<sup>1</sup> represents an acyl group of formula R<sub>1a</sub>-CO, wherein R<sub>1a</sub> represents a C1-4 alkyl, phenyl, piperidin-1-yl, 4-methylpiperazin-1-yl, pyrrolidin-1-yl; or phenyl, pyridyl or phenylethenyl substituted with one or more groups selected from an alkyl, alkoxy, nitro, or halogen atom; or a phenylethenyl or phenylethyl substituted with alkylene-dioxy.~~

Claim 33. (previously presented): A compound according to claim 32 wherein B represents a group having



Claim 34. (previously presented): A compound according to claim 32 wherein B represents a group having



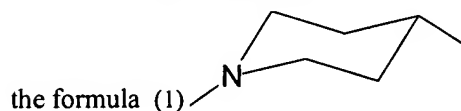
Claim 35. (canceled)

Claim 36. (canceled)

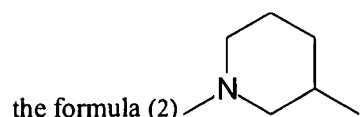
Claim 37. (canceled)

Claim 38. (currently amended): A compound according to claim 32 wherein said nitrogen-containing aromatic moiety consisting of one or two aromatic rings is selected from a pyridyl, pyridazinyl, pyrimidinyl, pyrazinyl, imidazolyl, pirazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, oxadiazolyl, quinolinyl, isoquinolinyl, cinnolinyl, phthalazinyl, quinazolinyl, quinoxalinyl, benzimidazolyl, indazolyl, benzothiazolyl, benzisothiazolyl, ~~benzoxazolyl~~ or benzisoxazolyl ring.

Claim 39. (previously presented): A compound according to claim 38 wherein B represents a group having



Claim 40. (previously presented): A compound according to claim 38 wherein B represents a group having



Claim 41. (canceled)

Claim 42. (canceled)

Claim 43. (canceled)

Claim 44. (previously presented): A compound according to claim 33 wherein R<sup>1</sup> represents 2-pyrimidinyl, 2-pyrazinyl, chloro- and cyano-substituted pyridazinyl, or cyano-substituted 2-pyridinyl; and R<sup>2</sup> represents a fluorine atom.

Claim 45. (previously presented): A compound according to claim 34 wherein R<sup>1</sup> represents 2-pyrimidinyl, 2-pyrazinyl, chloro- and cyano-substituted pyridazinyl, or cyano-substituted 2-pyridinyl; and R<sup>2</sup> represents a fluorine atom.

Claim 46. (canceled)

Claim 47. (canceled)

Claim 48. (canceled)

Claim 49. (currently amended): A compound according to claim 30 selected from the group consisting of ~~(2S)-4,4-difluoro-1-(2-[[8-(2-pyrimidinyl)-8-azabicyclo[3.2.1]oct-3-yl]-exo-amino]acetyl)-2-pyrrolidine~~ carbonitrile;

~~(2S)-4,4-difluoro-1-(2-{{[8-(2-pyrimidinyl)-8-azabicyclo[3.2.1]oct-3-yl]-exo-amino}acetyl})-2-pyrrolidine carbonitrile;~~

~~(2S,4S)-4-fluoro-1-(2-{{[8-(2-pyrazinyl)-8-azabicyclo[3.2.1]oct-3-yl]-exo-amino}acetyl})-2-pyrrolidine carbonitrile;~~

(2S)-4,4-Difluoro-1-(2-{{[1-(2-pyrazinyl)piperidin-4-yl]amino}acetyl})-2-pyrrolidine carbonitrile,

(2S)-4,4-Difluoro-1-(2-{{[1-(5-cyanopyridin-2-yl)piperidin-4-yl]amino}acetyl})-2-pyrrolidine carbonitrile,

(2S)-4,4-Difluoro-1-(2-{{[1-(6-chloropyridazin-3-yl)piperidin-4-yl]amino}acetyl})-2-pyrrolidine carbonitrile,  
and

(2S)-4,4-Difluoro-1-(2-{{[1-(6-cyanopyridazin-3-yl)piperidin-4-yl]amino}acetyl})-2-pyrrolidine carbonitrile.

Claim 50. (previously presented): A pharmaceutical formulation comprising a compound according to claim 30 and a pharmaceutically acceptable excipient.

Claim 51. (previously presented): A pharmaceutical formulation comprising a compound according to claim 32 and a pharmaceutically acceptable excipient.

Claim 52. (previously presented): A pharmaceutical formulation comprising a compound according to claim 38 and a pharmaceutically acceptable excipient.

Claim 53. (previously presented): A pharmaceutical formulation comprising a compound according to claim 39 and a pharmaceutically acceptable excipient.

Claim 54. (previously presented): A pharmaceutical formulation comprising a compound according to claim 40 and a pharmaceutically acceptable excipient.

Claim 55. (canceled)

Claim 56. (canceled)

Claim 57. (canceled)

Claim 58. (currently amended): A pharmaceutical formulation according to claim 50 wherein the compound is selected from the group consisting of

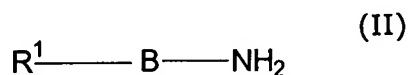
~~(2S)-4,4-difluoro-1-(2-{{[8-(2-pyrimidinyl)-8-azabicyclo[3.2.1]oct-3-yl]-exo-amino}acetyl})-2-pyrrolidine carbonitrile;~~

~~(2S,4S)-4-fluoro-1-(2-{{[8-(2-pyrazinyl)-8-azabicyclo[3.2.1]oct-3-yl]-exo-amino}acetyl})-2-pyrrolidine carbonitrile;~~

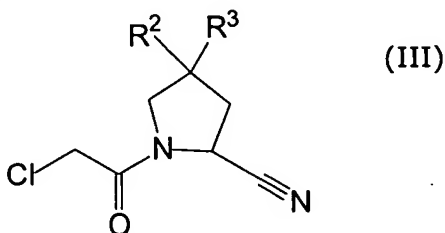
(2S)-4,4-difluoro-1-(2-{{[1-(2-pyrazinyl)piperidin-4-yl]amino}acetyl})-2-pyrrolidine carbonitrile;

(2*S*)-4,4-difluoro-1-(2-{{1-(5-cyanopyridin-2-yl)piperidin-4-yl}amino} acetyl)-2-pyrrolidine carbonitrile;  
 (2*S*)-4,4-difluoro-1-(2-{{1-(6-chloropyridazin-3-yl)piperidin-4-yl} amino} acetyl)-2-pyrrolidine carbonitrile;  
 and  
 (2*S*)-4,4-difluoro-1-(2-{{1-(6-cyanopyridazin-3-yl)piperidin-4-yl} amino} acetyl)-2-pyrrolidine carbonitrile.

Claim 59. (withdrawn): A process for the preparation of a compound according to claim 30, wherein a compound having the formula (II):



is reacted with a compound of the formula (III):



wherein  $R^1$ , B,  $R^2$  and  $R^3$  are as defined in claim 30.

Claim 60. (withdrawn): A method for the treatment or prevention of diseases related to DPP-IV enzyme activity which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound according to claim 30.

Claim 61. (withdrawn): A method for the treatment or prevention of diseases related to DPP-IV enzyme activity which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound according to claim 32.

Claim 62. (withdrawn): A method for the treatment or prevention of diseases related to DPP-IV enzyme activity which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound according to claim 38.

Claim 63. (withdrawn, currently amended): A method according to claim 60 wherein the compound is selected from the group consisting of:

~~(2*S*)-4,4-difluoro-1-(2-{{[8-(2-pyrimidinyl)-8-azabicyclo[3.2.1]oct-3-yl]}exo-amino}acetyl)-2-pyrrolidine carbonitrile;~~

~~(2*S*,4*S*)-4-fluoro-1-(2-{{[8-(2-pyrazinyl)-8-azabicyclo[3.2.1]oct-3-yl]}exo-amino}acetyl)-2-pyrrolidine carbonitrile;~~

(2*S*)-4,4-difluoro-1-(2-{{1-(2-pyrazinyl)piperidin-4-yl}amino} acetyl)-2-pyrrolidine carbonitrile;

(2*S*)-4,4-difluoro-1-(2-{{1-(5-cyanopyridin-2-yl)piperidin-4-yl}amino} acetyl)-2-pyrrolidine carbonitrile;

(2S)-4,4-difluoro-1-(2-([1-(6-chloropyridazin-3-yl)piperidin-4-yl] amino)acetyl)-2-pyrrolidine carbonitrile;  
and

(2S)-4,4-difluoro-1-(2-([1-(6-cyanopyridazin-3-yl)piperidin-4-yl] amino)acetyl)-2-pyrrolidine carbonitrile.

Claim 64. (withdrawn): A method for the treatment or prevention of diabetes comprising administering to a patient in need of such treatment an effective amount of a compound according to claim 30.

Claim 65. (withdrawn): A method for the treatment or prevention of diabetes comprising administering to a patient in need of such treatment an effective amount of a compound according to claim 32.

Claim 66. (withdrawn): A method for the treatment or prevention of diabetes comprising administering to a patient in need of such treatment an effective amount of a compound according to claim 38.

Claim 67. (withdrawn; currently amended): A method according to claim 64, wherein the compound is selected from the group consisting of:

~~(2S)-4,4-difluoro-1-(2-([8-(2-pyrimidinyl)-8-azabicyclo[3.2.1]oct-3-yl] exo-amino)acetyl)-2-pyrrolidine carbonitrile;~~

~~(2S,4S)-4-fluoro-1-(2-([8-(2-pyrazinyl)-8-azabicyclo[3.2.1]oct-3-yl] exo-amino)acetyl)-2-pyrrolidine carbonitrile;~~

(2S)-4,4-difluoro-1-(2-([1-(2-pyrazinyl)piperidin-4-yl] amino)acetyl)-2-pyrrolidine carbonitrile;

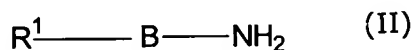
(2S)-4,4-difluoro-1-(2-([1-(5-cyanopyridin-2-yl)piperidin-4-yl] amino)acetyl)-2-pyrrolidine carbonitrile;

(2S)-4,4-difluoro-1-(2-([1-(6-chloropyridazin-3-yl)piperidin-4-yl] amino)acetyl)-2-pyrrolidine carbonitrile;

and

(2S)-4,4-difluoro-1-(2-([1-(6-cyanopyridazin-3-yl)piperidin-4-yl] amino)acetyl)-2-pyrrolidine carbonitrile.

Claim 68. (withdrawn): A compound having the formula (II):



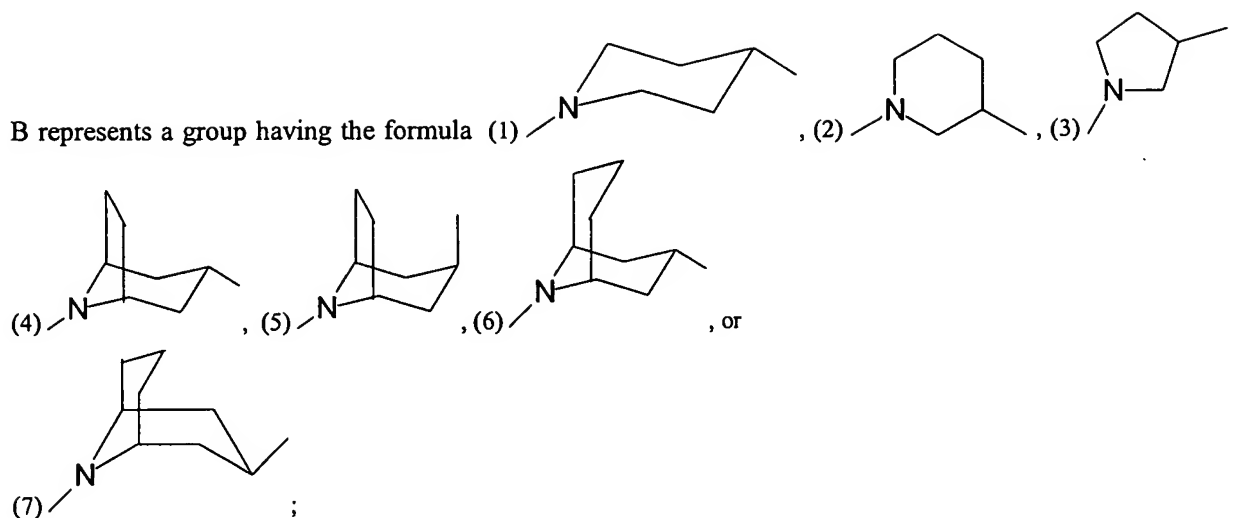
wherein

R<sup>1</sup> represents a nitrogen-containing aromatic moiety consisting of one or two aromatic rings; which is optionally mono- or disubstituted by a substituent independently selected from the group consisting of C1-4 alkyl, C1-4 alkoxy, halogen, trihalogenomethyl, methylthio, nitro, cyano, amino, and phenyl group; or

R<sup>1</sup> represents a thienyl, furyl or benzyl group; or

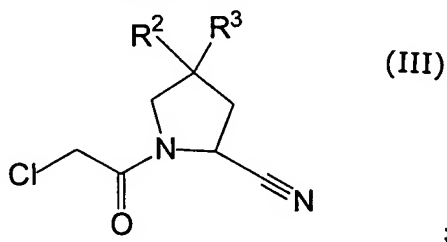
R<sup>1</sup> represents a p-toluenesulfonyl group; or

R<sup>1</sup> represents an acyl group of formula R<sub>1a</sub>-CO, wherein R<sub>1a</sub> represents a C1-4 alkyl, phenyl, piperidin-1-yl, 4-methylpiperazin-1-yl, pyrrolidin-1-yl; or phenyl, pyridyl or phenylethenyl substituted with one or more groups selected from an alkyl, alkoxy, nitro, or halogen atom; or a phenylethenyl or phenylethyl substituted with alkylene-dioxy; and



or an isomer or salt thereof.

Claim 69. (withdrawn): A compound having the formula (III):



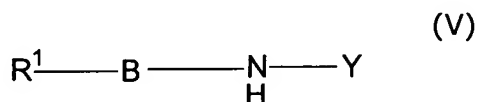
wherein

R<sup>2</sup> represents a hydrogen atom or a fluorine atom; and

R<sup>3</sup> represents a fluorine atom;

or an isomer thereof.

Claim 70. (withdrawn): A compound having the formula (V):

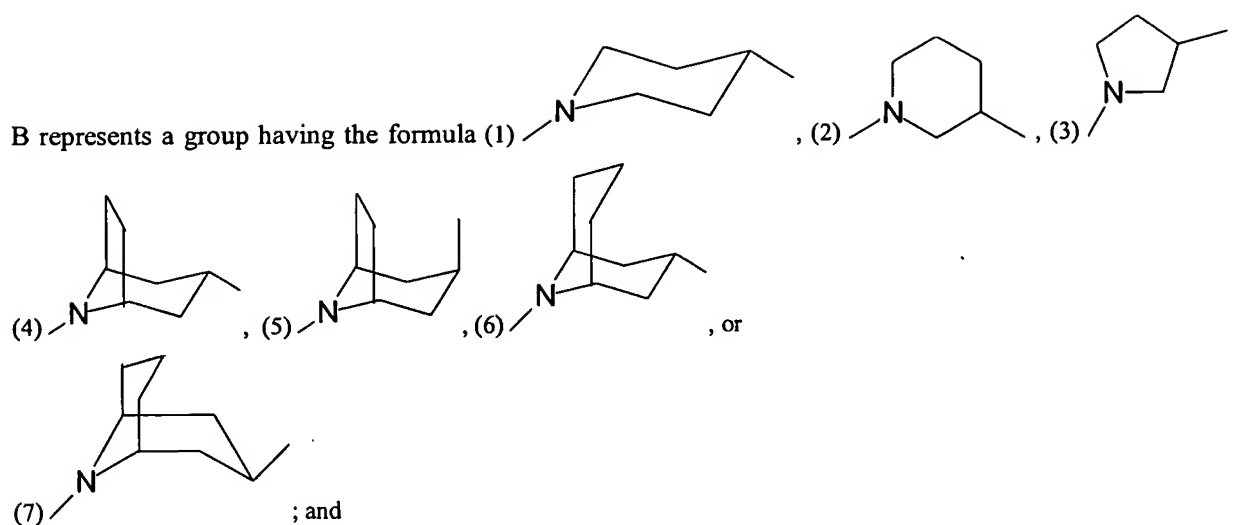


wherein R<sup>1</sup> represents a nitrogen-containing aromatic moiety consisting of one or two aromatic rings; which is optionally mono- or disubstituted by a substituent independently selected from the group consisting of C1-4 alkyl, C1-4 alkoxy, halogen, trihalogenomethyl, methylthio, nitro, cyano, amino, and phenyl group; or

R<sup>1</sup> represents a thienyl, furyl or benzyl group; or

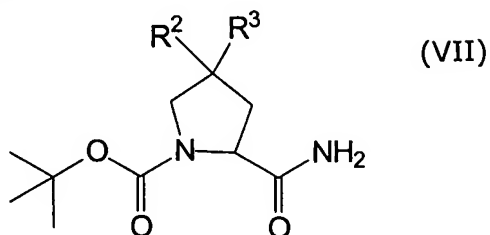
R<sup>1</sup> represents a p-toluenesulfonyl group; or

R<sup>1</sup> represents an acyl group of formula R<sub>1a</sub>-CO, wherein R<sub>1a</sub> represents a C1-4 alkyl, phenyl, piperidin-1-yl, 4-methylpiperazin-1-yl, pyrrolidin-1-yl; or phenyl, pyridyl or phenylethenyl substituted with one or more groups selected from an alkyl, alkoxy, nitro, or halogen atom; or a phenylethenyl or phenylethyl substituted with alkylene-dioxy; and



Y represents an acetyl or *tert*-butoxycarbonyl group;  
or an isomer or salt thereof.

Claim 71. (withdrawn): A compound having the formula (VII):



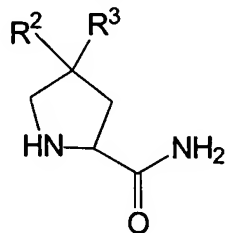
wherein

R<sup>2</sup> represents a hydrogen atom or a fluorine atom; and

R<sup>3</sup> represents a fluorine atom;

or an isomer thereof.

Claim 72. (withdrawn): A compound having the formula:



wherein

R<sup>2</sup> represents a hydrogen atom or a fluorine atom; and

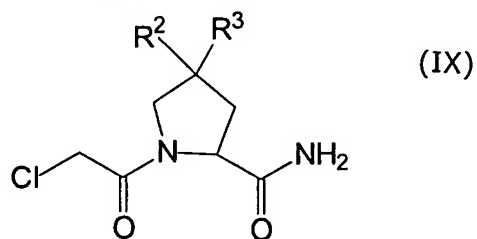
R<sup>3</sup> represents a fluorine atom;

or an isomer or salt thereof.



Claim 73. (withdrawn): A compound according to claim 72 in the form of a hydrochloride salt.

Claim 74. (withdrawn): A compound having the formula (IX):



wherein

R<sup>2</sup> represents a hydrogen atom or a fluorine atom; and

R<sup>3</sup> represents a fluorine atom;

or an isomer thereof.